BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL, ENVIRONMENTAL AND CONSTRUCTION MATERIALS CONSULTANTS

REPORT OF PHASE I ENVIRONMENTAL SITE ASSESSMENT

Volvo Construction Equipment Site
2169 Hendersonville Road
Asheville, Buncombe County, North Carolina

Prepared for

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BLE Project Number J10-7389-02

TABLE OF CONTENTS

1.0 SUMMARY

As authorized by the Buncombe County Planning Department, BLE performed a Phase I Environmental Site Assessment (ESA) of the subject VCE property in May 2011. The approximate 66.74-acre subject site is located at 2169 Hendersonville Road in Arden, North Carolina (PIN Numbers: 9644-87-4957-00000, 9644-89-7101-00000, 9644-89-7195-00000, 9644-97-6333-00000, 9644-98-7146-00000, and 9644-99-1143-00000). The site location is indicated on the attached Figure 1 (**Appendix B**).

The Phase I ESA was performed in general accordance with ASTM E 1527-05, Standard Practice for ESAs which constitutes "all appropriate inquiry (AAI) into the previous ownership and uses of a property consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B). The main objective of the ESA was to identify the presence or likely presence, use, or release on the site of hazardous substances or petroleum products as defined in ASTM Practice E 1527-05 as a recognized environmental condition (*REC*). A summary of our findings and recommendations is presented below.

On-site Features:

At the time of this Phase I ESA, the inactive industrial/manufacturing facility was owned by Volvo Construction Equipment North America, Inc. (VCE). During BLE's May 5, 2011 site reconnaissance, the property and on-site structures were vacant. Structures present on site generally consisted of manufacturing Building 1 (*Fabrication Building),* Building 2 *(Assembly Building*), a final paint building, office buildings, other support buildings, aboveground-storage tank farms, a covered hazardous materials storage area, several other covered storage areas, paved parking areas and a former rail spur connected to a Norfolk Southern rail line.

A gravel laydown yard, a wooded area and Lake Julian occupy the western and southern site perimeters. Storm water runoff is conveyed into several catch basins which are piped to three retention ponds along the southern site boundary. Oil/water separators prevent oily-discharges from reaching Lake Julian.

Floor drains within the interior buildings are reportedly connected and discharge to the municipal sewer system. Drains were observed to be in good condition and no hazardous materials staining indicative of past releases were observed around the drains. Drains located in the wash areas are either connected to concrete-lined sumps, which are pumped out periodically, or discharge to one of two oil/water separators on site.

Utilities are provided to the facility by Progress Energy (electric), the City of Ashville Water Resources Department, the Metropolitan Sewerage District of Buncombe County and PSNC Energy (natural gas). The facility is secured by 24-hour security guard and gated entrances.

Surrounding Area General Characteristics

The site is located in an industrial district at approximately 2,200 feet above mean sea level and slopes gradually to the west-southwest. Rainfall is expected to run off impervious surfaces and into Lake Julian. Surrounding properties are primarily commercial, industrial, and residential use. Lake Julian, undeveloped land, and a railroad track are located to the south of the site.

Site History

Prior owners and operators of the property consisted of Carolina Power and Light Co. (1940 – 1969); Mr. Robertson Wall (1969 – 1975); Clark Equipment Co. (Clark) (late 1970s – 1986); VME Americas, Inc. (VME) (1986 - 1996); and Volvo Construction Equipment of North America, Inc. (VCE) (1996 – 2011). According to the historic data review, single-family residence occupied the subject property between 1906 and 1965. Industrial operations since the 1970s consisted of the manufacture and assembly of construction equipment (e.g., wheel loaders, mini wheel loaders, backhoe loaders, wheeled excavators, excavators, mini excavators, articulated haulers, motor graders, and skid steers). Clark manufactured tow motors, forklifts, and construction equipment. Manufacturing processes generally included engineering, welding, machining, milling, electroplate coating and painting of machinery components (frames, cab, and counterweights), assembling, and testing equipment before shipment. Petroleum fuel, paints, and solvents were stored on site. The plant was closed in March 2010.

Specialized Knowledge

Facility records documented hazardous materials generation, handling, storing, and disposal practices from the 1980s to March 2011. Facility records of two oil spills and possible on-site disposal of solids (grit and sands) were provided by VCE. Environmental issues at the facility documented soil and groundwater contamination near former fuel storage tanks and manufacturing (painting) areas. Several reports of Phase II site assessments from 1994 to 2010 are referenced at the appropriate sections of this Phase I ESA.

Underground and Aboveground Storage Tanks

No underground storage tanks (USTs) or aboveground storage tanks (ASTs) are currently present on the site; however, petroleum fuel USTs and ASTs have been present at the site during past years.

Prior to December 1994, five petroleum fuel USTs were present in the area located between Buildings 1 and 2. The tanks consisted of one 30,000-gallon hydraulic oil, one 12,000-gallon diesel, one 10,000-gallon waste oil, one 8,000-gallon engine oil, and one 8,000-gallon antifreeze UST. Two petroleum fuel release incidents were documented from the UST system; a subsurface transfer line release in 1987, and UST releases detected during tank removals in 1994.

One new AST concrete containment area was located south of Building 2; although it had not been used and did not contain any tanks. Prior to BLE's site reconnaissance, five ASTs had been located in the concrete containment area near the test-track; and five additional ASTs containing diesel oil, hydraulic oil, motor oil, transmission fluid, and antifreeze had been present adjacent to the covered storage containment area located between Building 1 and 2. At the time of our site reconnaissance, two propane ASTs were observed in the area adjacent to the covered storage containment area. We did not observe staining or obvious signs of a release in the former AST areas or AST containment areas. No documented AST releases were reported to BLE.

Regulatory Agency Review

Federal and State environmental agency databases were researched for public record listings of hazardous substances and petroleum products releases on or near the property.

Subject Property

Federal and state listings for VCE, VME and Clark., included the Comprehensive Environmental Response, Compensation, and Liability Information System – No Further Remediation Planned (CERC-NFRAP), Resource Conservation and Recovery Act – Small Quantity Generator (RCRASQG), Facility Index System/Facility Registry System (FINDS), and Underground Storage Tank (UST), RCRA Large Quantity Generator (LQG), National Emissions Inventory (NEI), National Pollutant Discharge Elimination System (NPDES), , Incident Management Database (IMD), Leaking Underground Storage Tank (LUST), and Pollution Incident Report Form (PIRF) databases, Hazardous Substance Disposal Site (HSDS).

In addition, the following information was available in the NCDENR regional office public files:

NCDENR - Groundwater Section

A *Pollution Incident Reporting Form* (1987) identified a 1-2 gallon oil leak from a subgrade diesel supply line under the UST area loading pad between Buildings 1 and 2. The supply line was shut off, drained, and tested with air pressure. An *Initial Phase Evaluation* of soil detected minimal levels of oil and grease from an oil/water separator release. The diesel UST and associated product lines were de-commissioned and ASTs were put in use. Although shallow soil samples contained minimal residual oil and grease, NCDENR closed the case with no further action required. The incident was assigned Groundwater Incident No 3374).

NCDENR - UST Section

A *Tank Closure Report* (1994) identified the removal of five USTs and associated piping in the area located between Buildings 1 and 2. One post-excavation soil sample detected oil and grease above NCDENR action limits. Post-excavation samples collected from the product lines area detected chlorinated volatile organic compounds (VOCs) and oil/grease above NCDENR action limits. The VOCs were attributed to the former Groundwater Incident No. 3374 (diesel release), which received closure in 1987. Therefore, no further chlorinated volatile compound analysis was completed during the UST investigation. The incident was assigned Federal ID No. 0-004736.

An *Initial Assessment* and *Soil Excavation and Assessment* (1995) was performed to define the horizontal and vertical extent of soil contamination, conduct soil excavation, and install-sample one groundwater monitoring well (MW-1). After contaminated soil was excavated from beneath the former USTs, residual oil and grease was detected in soil at 19 feet deep. Further excavation of soils was not possible due to the presence of buried utilities. A groundwater sample collected from well MW-1 was analyzed for semi-volatile petroleum hydrocarbons and analytical results were below the method detection limit. The incident was assigned Groundwater Incident No. 13466.

Four subsequent *Quarterly Monitor Well Sampling* events (1995-1996) detected minimal groundwater concentrations of semi-volatile organic compounds below NCDENR standards. In October 1996, NCDENR split samples from MW-1 and detected a film of “an unknown oil”. However, from the incident NCDENR classified the incident as a low-priority (60E). VME was required to conduct free product removal from well MW-1 and a water supply well survey within 1,500 feet of the former tank excavation. No further documentation was in the NCDENR public record for this incident.

A *Cleanup Report with Site Closure Request*, (2010) was performed to obtain a *"No Further Action"* closure of the incident No. 13466. A *"Notice of Residual Petroleum" (NRP)* was submitted to NCDENR which defined a "*Delineated Area"* to be restricted for industrial/commercial use only. In response, the NCDENR UST Section issued a "*Notice of No Further Action*" (NFA), pursuant to 15A NCAC 2L.0407(d), Risk-Based Assessment and Corrective Action for Petroleum Underground Storage Tanks, on December 15, 2010. This NFA pertains only to the UST incident described above (Groundwater Incident No. 13466).

NCDENR - Superfund Section

The North Carolina Superfund Section indicated that the USEPA designated NFRAP status to Clark in August 1995, and that no further information exists in the State Inactive Hazardous Sites for the property.

Surrounding Properties

Surrounding properties were not determined to impact the subject property based upon the distance of the listed property, downgradient, or sidegradient topography locations, and separation by a hydrologic barrier.

Recognized Environmental Conditions (REC)

- Residual soil and groundwater contamination by petroleum and chlorinated VOCs was documented at the site in 1987, 1994, and 1995. The releases occurred from the buried piping of a UST system located between Buildings 1 and 2, (NC Incident No. 3374, 13466, and Federal ID No. 0-004736). The incident was assessed and NCDENR classified the site as "low-priority" (60E). VME was required to conduct free product removal from well MW-1 and a water supply well survey within 1,500 feet of the former tank excavation. No further documentation was in the public record addressing these NCDENR requirements.

- The chlorinated VOCs detected during the above incident assessments were reported to be associated with the 1987 diesel line release (Incident No. 3374), which received closure from NCDENR. The presence of chlorinated VOCs is not consistent with a diesel release and would indicate the presence of other sources for this soil contaminant.

- VCE's consultant, BB&J, prepared a *Notice of Residual Petroleum* (NRP) to address the UST removals in 1994. A *perpetual land use restriction* for the area proximal to the former USTs (defined as *Delineated Area)* limits the property to industrial/commercial use, in accordance with the NCDENR NRP. The NCDENR UST Section issued a "*Notice of No Further Action*" on December 15, 2010. This NFA pertains only to the UST Incident No. 13466.

- The location of an oil/water separator identified in the *Report of Initial Phase Evaluation*, prepared by S&ME and dated June 26, 1987, on site is unknown.

- Based on internal facility records, additional *RECs* were identified, as follows:
  - Unknown location of a reported concrete lined sump on site;
  - 2008 petroleum spill and impact to West and Office Retention Pond sediments;
  - 2005 hydraulic oil spill in the central above ground tank farm;
  - Unknown location of soil piles and oil/water separator grit on site;

- Use of tetrachloroethene (PCE), trichloroethene (TCE) and 2-chlorotoluene;
- Former drum storage and waste oil AST areas (Clark Equipment operations);
- Former hazardous waste and paint storage area (Clark Equipment operations);
- Reported disposal of sand blasting spoils on site; and
- Various former wash pads on the site dating to 1995.

2.0 RECOMMENDATIONS

BLE recommends a Limited Phase II ESA to include collection of soil and groundwater samples downgradient from the former product line release, UST release, areas where past facility records have documented oil spills, hazardous materials storage areas, historical oil/water separator, and possible solids disposal (grit and sands). A sample laboratory analysis plan should target contaminants of concern, based on the environmental issues identified.

3.0 INTRODUCTION

This report documents the Phase I Environmental Site Assessment (ESA) findings, opinions and conclusions for 2169 Hendersonville Road in Asheville, Buncombe County, North Carolina. BLE was retained by the Buncombe County Planning Department to prepare this ESA, which was performed under the conditions of, and in accordance with BLE Proposal Number P11-0209, dated April 21, 2011, and in general accordance with ASTM E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The scope of this ESA is consistent with the United States Environmental Protection Agency's (USEPA's) Standards and Practices for All Appropriate Inquiries (AAI), as defined in §312.10 of 40 CFR 312. The methods and terms used in this report are defined in the referenced proposal.

3.1 Purpose/Scope of Services

The purpose of this assessment is to review the general environmental condition of the land that comprises the site. Specifically, the report seeks to identify *recognized environmental conditions* (*REC*s) on and near the site and records of those areas that may adversely impact the site operator under existing federal, state, and local environmental laws, and to recommend further actions necessary to confirm, quantify, or abate those conditions.

The term *recognized environmental conditions* (*RECs*) is defined as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the site or into the ground, groundwater, or surface water of the site. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not *RECs*. In addition, environmental conditions that in the past would have been considered a *REC*, but which may or may not be considered a *REC* currently, are identified as *historical recognized environmental conditions* (*HRECs*) in this report. Generally, the assessment included the following components:

- A review of readily-available information on general geology and topography of the subject site, local groundwater conditions, sources of water, power, and sewer, and proximity to ecologically sensitive receptors, such as streams, that might be impacted by *RECs* and environmental issues.

- An investigation of historical use of the subject site through reasonably ascertainable ASTM Standard Historical Sources for evidence of prior land use that could have led to *RECs*. These Standard Historical Sources may include: aerial photography, fire insurance maps, property tax files, USGS topographic maps, local street directories, building department records and zoning/land use records.

- A review of environmental records available from the client, property owner or site contact including regulatory agency reports, permits, registrations, and consultant reports for evidence of *RECs* and Activity and Land Use Limitations (AULs).

- A review of a commercial database summary of ASTM Standard Federal, State, and Tribal regulatory agency records pertinent to the subject site and offsite facilities located within ASTM-specified search distances from the subject site.

- Conducting interviews regarding current and previous uses of the site, particularly activities involving hazardous substances and petroleum products.

- Conducting a reconnaissance of the subject site for visual evidence of *RECs*, including, but not limited to: existing or potential soil and water contamination, as evidenced by soil or pavement staining or discoloration, stressed vegetation, or indications of waste dumping or burial; pits, ponds, or lagoons; containers of hazardous substances or petroleum products; electrical and hydraulic equipment that may contain polychlorinated biphenyls (PCBs), such as electrical transformers and hydraulic hoists; underground and aboveground storage tanks (USTs and ASTs, respectively); etc.

- Performing a visual assessment (from the line of the subject site and/or public right-of-ways) of adjacent properties for evidence of potential offsite environmental conditions that may affect the subject site.

- Evaluation of the information gathered during the assessment by an Environmental Professional (as defined in §312.10 of 40 CFR 312) to reach conclusions concerning *RECs*, and development of this report.

This assessment did not include sampling or analysis of soil, groundwater, or other materials. Similarly, this assessment did not include an evaluation of any "non-scope" items listed in Section 13 of the referenced ASTM standard. Similarly, this assessment did not include an evaluation of any "non-scope" items (i.e. silviculture, high voltage power lines, ecological resources, etc. al.) listed in Section 12 of ASTM Practice E-2247-02, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property*.

Mr. Thomas L. Lammons, P.G., CHMM, a Principal Hydrogeologist (and an Environmental Professional as defined in §312.10 of 40 CFR 312) conducted the site reconnaissance on May 5, 2011.

3.2 Assumptions, Limitations, and Exceptions

Information for the assessment was obtained from sources referenced in the report. This information, to the extent it was relied on to form our opinion, is assumed to be correct and complete. BLE is not responsible for the quality or content of information from these sources.

BLE has prepared this Phase I ESA using reasonable efforts in each phase of its work to identify *RECs* associated with hazardous substances or petroleum products at the site. The scope-of-work for this Phase I ESA was consistent with the ASTM Practice E 1527-05. Findings within this report are based on information collected from observations made on the day of the site investigation and from reasonably ascertainable information obtained from governing public agencies and referenced sources.

BLE's observations of the site were generally from within the facility, the facility exteriors, public right-of-ways, and easily-accessible pathways. No residential structures were entered during this assessment. BLE determined the approximate site boundaries from interpretation of client-provided aerial photographs, preliminary maps, and Buncombe County GIS data.

This report is not definitive and should not be assumed to be a complete or specific definition of all conditions above or below grade. Subsurface conditions may differ from the conditions implied by the surface observations and can only be reliably evaluated through intrusive techniques. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other construction purposes. BLE makes no representation or warranty that the past or current operations at the site are or have been in compliance with all applicable federal, state, and local laws, regulations, and codes. BLE's attempt to observe the site for the presence or absence of hazardous substances or petroleum products; generation, treatment, storage, or disposal of such materials and equipment that utilizes oils which potentially contain PCBs; should not be considered exhaustive.

Regardless of the findings stated in this report, BLE is not responsible for consequences or conditions arising from facts that were concealed, withheld, or not fully disclosed at the time the assessment was conducted. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

The regulatory database report provided is based on an evaluation of the data collected and compiled by a contracted data research company. The report focuses on the subject site and neighboring properties that could impact the subject site. Neighboring properties listed in governmental environmental records are identified within specific search distances. The search distance varies depending upon the particular government record being checked. The regulatory research is designed to meet the requirements of ASTM Practice E 1527-05. The information provided in the regulatory database report is assumed to be correct and complete unless obviously contradicted by field observation or other reviewed sources.

Reasonable efforts have been made during this assessment of aboveground and underground storage tanks and ancillary equipment. "Reasonable efforts" are limited to information gained from visual observation of largely unobstructed areas, recorded database information held in public record and available information gathered from interviews. Such methods may not identify subsurface equipment that may have been hidden from view due to paving, construction or debris pile storage, or incorrect information from sources. BLE is not a professional title insurance firm and makes no guarantee, explicit or implied, that any land title records reviewed represent a comprehensive or precise delineation of past site ownership or occupancy for legal purposes.

3.3 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by Buncombe County, North Carolina or any of its affiliates pursuant to previously agreed upon terms and conditions. Reliance on this document by any party other than Buncombe County, North Carolina may occur only upon the express written consent of Buncombe County, North Carolina and upon the relying third party's execution of a written Secondary Client Agreement between the relying third party and BLE. The services provided have been performed for Buncombe County, North Carolina and this report may or may not be suitable for any and/or all of the purposes of the relying third party. Use of this report for purposes beyond those reasonably intended by Buncombe County, North Carolina and BLE will be at the sole risk of the user. Any third party agrees by accepting this report that any use or reliance on this report shall be limited by the exceptions and limitations placed on the scope, nature and type of BLE's services as stated in BLE's proposal and/or this report, and with the acknowledgment that actual site conditions may change with time, and that hidden conditions may exist at the site that were not discoverable within the authorized scope of the assessment. BLE makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the preparation of the report and in the assembling of data and information related thereto. No other warranties are made to any third party, either expressed or implied.

4.0 SITE DESCRIPTION

4.1 Location and Description

The approximate 66.74-acre site is located at 2169 Hendersonville Road in Arden, North Carolina (PIN Numbers: 9644-87-4957-00000, 9644-89-7101-00000, 9644-89-7195-00000, 9644-97-6333-00000, 9644-98-7146-00000, and 9644-99-1143-00000). Refer to Figures 1 and 2.

The industrial facility, which is currently vacant, has been used as a manufacturing and assembly plant for construction equipment since the original development circa mid- to late-1970s. Clark Equipment Co. (Clark) and subsequently VME Americas, Inc. (VME), manufactured tow motors, forklifts and construction equipment at the site from the 1970s to the 1990s. Volvo Construction Equipment North America, Inc. (VCE) acquired VME in 1996 and until March 2010 manufactured construction equipment such as wheel loaders, mini wheel loaders, backhoe loaders, wheeled excavators, excavators, mini excavators, articulated haulers, motor graders, and skid steers. VCE corporate headquartered is in Asheville, North Carolina.

Utility services are provided by Progress Energy (electric), the City of Ashville Water Resources Department, the Metropolitan Sewerage District of Buncombe County, and PSNC Energy (natural gas). The facility is secured by 24-hour security guard and gated entrances.

A *Marketing Package* of property and building details prepared by Jones Lang LaSalle is provided in **Appendix B**. Site Photograph Documentation is included in **Appendix A**. Pertinent maps and figures are included in **Appendix B**.

4.2 Surrounding Area General Characteristics

The site is located in an industrial district at approximately 2,200 feet above mean sea level and slopes gradually to the west-southwest. Rainfall is expected to run off impervious surfaces and into Lake Julian.

Surrounding properties are primarily commercial, industrial, and residential use. Lake Julian and undeveloped land are located to the west and south of the site.

4.3 Current Use of the Property

During BLE's May 5, 2011 site reconnaissance all buildings were vacant. The following structures are on site:

- A 177,300 square foot, single-story construction vehicle *Fabrication Building* and two-story office building, identified as Building 1, located on the eastern portion of the site;
- A 163,000 square foot, single-story construction vehicle *Assembly Building* and two-story office building, identified as Building 2, located on the central portion of the site;
- A 30,700 square foot, final paint building located on the western portion of the site;
- A 15,600 square foot, one-story office building, identified as the Main Office, located between Building 1 and Building 2 on the south-central portion of the site;
- A 3,600 square foot building, identified as the PDI Building;
- A 2,000 square foot building, identified as the Guest House;
- Several covered storage areas located in the central portion of the site;
- A covered, three-sided sand blasting shed located at the northeast corner of the site;
- Paved parking area located on the southeastern portion of the site;
- A test-track located on the northeastern portion of the site;
- An undeveloped, cleared area located on the northern portion of the site; and
- A former rail spur along the northern site boundary connected to a Norfolk Southern rail line – located to the southeast of the site and crossing Lake Julian.

A gravel laydown yard, asphalt parking, driveways, and a wooded area occupy the southern site perimeters. Storm water in areas surrounding the site buildings drains into several catch basins located throughout the site. These catch basins, along with rainwater roof leaders from each site building, are piped to discharge points located within three retention ponds located along the southern site boundary. According to VCE personnel, storm water from western portions of the site is piped to the concrete-lined retention pond located adjacent to the southwest of Building 2 where it is serviced by one oil/water separator and discharged to the main retention pond located at the southern site boundary. During the site reconnaissance, no evidence of an oily-type release was observed in areas surrounding the discharge pipes within the retention ponds.

Floor drains within the interior buildings are reportedly connected and discharge to the municipal sewer system. Drains were observed to be in good condition and no hazardous materials staining indicative of past releases were observed around the drains. Drains located in the wash areas are either connected to concrete-lined sumps, which are pumped out periodically, or discharge to one of two oil/water separators on site. Various concrete equipment vaults were reported in Buildings 1 and 2 during Clark's previous operations. These vaults were backfilled and cemented close during our Phase I ESA site reconnaissance.

Progress Energy supplies the site with electricity. Potable water is provided by the City of Ashville Water Resources Department, and the Metropolitan Sewerage District of Buncombe County provides sewer service. Natural gas service is provided by PSNC Energy. The site is heated by natural gas-fired heating equipment.

The facility is secured with gated entrances that are staffed by security personnel 24 hours a day. Persons entering the facility must pass through the Hendersonville Road gate. The Long Shoals Road gate stays closed.

Photographs of the subject property were taken during the site reconnaissance and are provided in **Appendix A**.

4.4 Current Use of Adjoining Properties

Adjacent and immediately surrounding properties along Hendersonville and Long Shoals Roads consist of commercial developments, light industrial use, and some residential use. The site is bounded to the south and west by Jake Julian. A Norfolk Southern rail line is located to the southeast of the site and crosses Lake Julian. In past years, a rail spur connected onto the site along the northern boundary. The tracks for this spur have been removed.

5.0 USER PROVIDED INFORMATION

ASTM E 1527 defines "user" as the party seeking to use Practice E 1527 to complete an environmental site assessment of the subject site. ASTM E 1527 specifies that certain tasks associated with identifying potential *RECs* at the subject site should be performed by the user and provided to the environmental professional.

Accordingly, BLE provided a questionnaire to Mr. Rick Robinson of VCE requesting specific information. At the time of this report, a copy of the questionnaire had not been returned to BLE.

5.1 Title Records

No title record information was provided to BLE for review as part of this assessment. Similarly, the procurement of such a document was not included in the scope of services for this assessment. According to the Buncombe County Register of Deeds, online land records database, VCE was the property owner at the time of our Phase I ESA. Additional ownership information from this source is provided in Section 6.3.4 "Recorded Land Title Records" obtained from an on-line source on Buncombe County Real Properties website.

5.2 Environmental Liens or Activity and Land Use Limitations

In 1995, Incident No. 13466 documented residual soil and groundwater contamination associated with five USTs removed from the property by Southern Petroleum Tank Co. (SPATCO).

In November 2010, VCE's consultant, BB&J, submitted a *Soil Cleanup Report with Site Closure Request* and "*Notice of Residual Petroleum*" (NRP) to the NCDENR UST Section, which NCDENR approved on December 15, 2010. The NRP of the *Delineated Area* is on file, and recorded with the property deed.

The NCDENR UST Section issued a "*Notice of No Further Action*" *(NFA)*, pursuant to 15A NCAC 2L.0407(d), Risk-Based Assessment and Corrective Action for Petroleum Underground Storage Tanks, on December 15, 2010. A "perpetual land use restriction" currently applies to the "*Delineated Area"* near the former USTs, limiting the property to industrial/commercial use. NCDENR determined that the land use restriction will be protective of human health and the environment.

5.3 Specialized Knowledge

Specialized knowledge regarding environmental issues at the facility has been documented in regulatory agency records, environmental assessment reports, and soil/groundwater sample analysis results conducted at the VCE site from the 1980s to December 2010. BLE conducted interviews with VCE employees at the operations, management, and corporate level who had specific knowledge of the hazardous materials generation, handling, storing, and disposal practices at the facility. A list of the numerous reference materials reviewed is provided in Section 6.3.9 of this report.

5.4 Commonly Known or Reasonably Ascertainable Information

Commonly known and/or reasonably ascertainable information regarding *RECs* associated with the subject site was provided, by the user and from NCDENR, to BLE prior to this assessment (see Section 5.3 above).

5.5 Significant Valuation Reduction for Environmental Issues

See Sections 5.3 and 6.3.9 regarding known environmental issues at the site. No other information regarding property valuation was provided to BLE for inclusion in this Phase I ESA.

5.6 Owner, Property Manager, and Occupant Information

At the time of this Phase I ESA, the property owner is VCE. VCE acquired the property and assets from VME circa 1996 and continued the previous manufacturing operations until the plant's closing in March 2010. Messrs. Robert Adams and Marty Breedlove were VCE Facilities Managers prior to closing in 2010. Mr. Rick Robinson is the Director of Safety and Environmental Affairs for Volvo Group, providing assistance to the plant environmental operations.

5.7 Reason for Performing Phase I ESA

BLE understands that the main objective of the ESA was to identify the presence or likely presence, use, or release on the subject site of hazardous substances or petroleum products as defined in ASTM Practice E 1527-05 as a *REC*. We also understand the Phase I ESA is being performed for risk management in consideration of a property purchase.

5.8 Other User-Provided Documents

User-provided documents submitted to BLE as part of this assessment are listed in Section 6.3.9 of this report.

6.0 RECORDS REVIEW

6.1 Standard Environmental Records

The regulatory agency database report discussed in this section, provided by Environmental Data Resources, Inc. (EDR), was reviewed for information regarding reported releases of hazardous substances and petroleum products on or near the property. BLE also reviewed the "unmappable" (sometimes referred to as "orphan") listings within the database report, cross-referencing available address

information and facility names when possible. Unmappable sites are listings that could not be plotted with confidence, but are identified as being located within the general area of the property based on the submitted property information. Any site from the unmappable listings that was identified by BLE as a result of the area reconnaissance and/or cross-referencing to mapped listings is included in the discussion within this section. A copy of the reviewed database report is included in **Appendix C** of this report. The following is a summary of the findings of the database review:

Summary Of Federal & State Agency Database Findings			
Regulatory Database	**Minimum Search Distance**	**Site Listed?**	**Properties Listed**
Federal National Priority List (NPL)	1 mile	No	0
Federal Delisted NPL	1 mile	No	0
Federal CERCLIS list	½ mile	No	0
Federal CERCLIS NFRAP	½ mile	No	0
Federal RCRA CORRACTS	1 mile	No	0
Federal RCRA non- CORRACTS TSD	½ mile	No	0
Federal RCRA Generators	¼ mile	Yes	2
Federal Institutional Control/Engineering Control Registry	½ mile	No	0
Federal Brownfields	½ mile	No	0
Federal ERNS List	Site	No	0
State- and Tribal- equivalent NPL	1 mile	No	0
State- and Tribal- equivalent CERCLIS	½ mile	No	1
State and Tribal Landfill and/or Solid Waste Disposal Sites	½ mile	No	0
State and Tribal Leaking Underground Storage Tanks (LUST)	½ mile	No	6
State and Tribal Registered Storage Tanks (UST & AST)	¼ mile	No	3
State and Tribal Institutional Control/Engineering Control Registry	½ mile	No	0
State and Tribal Voluntary Cleanup Site	½ mile	No	0
State and Tribal Brownfield Sites	½ mile	No	0
RCRA-NonGen	¼ mile	No	4
FINDS	Site	Yes	0
Incident Management Database (IMD)	½ mile	No	1

The EDR Orphan Summary Report includes listings for twenty (20) properties which are included in certain federal or state environmental databases but are reported by EDR to be unmapped due to insufficient address information. The listing of orphan sites was reviewed, considering known facilities located in close proximity to the subject property, the classification of the listed site, and the street address. Based upon available information, it appears that none of the listed orphan sites will impact the subject property.

6.1.1 Federal and State Agency Database Findings

Subject Property:

Volvo Construction Equipment
VCE is identified on the Comprehensive Environmental Response, Compensation, and Liability Information System – No Further Remediation Planned (CERC-NFRAP), Resource Conservation and Recovery Act – Small Quantity Generator (RCRASQG), Facility Index System/Facility Registry System (FINDS), and Underground Storage Tank (UST) databases.

The CERC-NFRAP database identifies archived sites that have been removed from the inventory of CERCLIS sites and for which no further steps will be taken to list the site on the National Priorities List (NPL). The property is identified on the CERC-NFRAP database under Site ID 0402897. The facility is listed with alias name Clark Equipment Co. in Buncombe County. The discovery date is listed as October 1, 1980 and a site inspection date is listed as July 29, 1989 with the facility's status identified as NFRAP.

The RCRA-SQG database identified the facility as a SQG in October 1999, and a Large Quantity Generator (LQG) from February 1990 to February 1994. Wastes are identified as ignitable hazardous wastes (D001), cadmium (D006), and spent non-halogenated solvents (F003 and F005). The facility is listed as receiving multiple Notices of Violation (NOVs) pertaining to Generators – Pre-transport, Used Oil – Fuel Marketers, LDR – General, and Generators – General. However, the majority of the violations have achieved compliance.

The FINDS database identifies other sources which contain information about the facility. The facility is identified on the FINDS database under Registry ID 110014020647, under the National Emissions Inventory (NEI), Toxics Release Inventory System (US EPA TRIS), RCRAInfo database, Integrated Compliance Information System (ICIS) database, and the Permit Compliance System (PCS) database, regarding National Pollutant Discharge Elimination System (NPDES) permit holding facilities.

The UST database identifies the facility under Facility ID 0-004736. There are five (5) USTs which were installed in April 1976 and listed as permanently closed on the property and removed in October 1994. The USTs are identified as one (1) 30,000-gallon petroleum UST, one (1) 8,000-gallon motor oil UST, one (1) 12,000-gallon diesel UST, one (1) 8,000-gallon antifreeze UST, and one (1) 10,000-gallon new/used mixed oil UST.

VME Americas Inc.
VME is identified under Facility ID/Incident Number 3374 on the Incident Management Database (IMD), Leaking Underground Storage Tank (LUST), and Pollution Incident Report Form (PIRF) databases.

The IMD and PIRF databases identify gasoline/diesel oil present on the loading pad of the storage area on February 19, 1987 from an underground leak. No groundwater contamination was identified. The incident is identified as "Closed Out" with a Close Out Report dated August 25, 1987.

The LUST database identifies UST Number AS-217 to have an underground petroleum leak as of March 6, 1987. The cleanup date is listed as July 25, 1987 and the close out date is listed as August 25, 1987.

The IMD, LUST, and PIRF databases also identified Facility ID/Incident Number 13466, soil contamination confirmed from samples taken upon the removal of UST AS-1305 on December 1, 1994.

Groundwater contamination was identified. The contaminant is identified as hydraulic oil and waste oil. The incident is listed as being in the "Response" phase.

Clark Equipment Company
The Detail Map included in the EDR environmental database search report depicts the presence of a Hazardous Substance Disposal Site (HSDS) on the subject property. This site is identified as Clark Equipment Company on the HSDS database. The site is listed under Superfund ID 079 068 607.

The North Carolina Superfund Section stated that the USEPA designated No Further Remedial Action Planned (NFRAP) status to Clark in August 1995. The North Carolina Superfund Section also stated that no information is present in the public record.

6.1.2 Additional Environmental Records

NCDENR

Groundwater Section:

NCDENR Groundwater Section files include a *Pollution Incident Reporting Form*, dated February 25, 1987, which identifies Incident No. 3374. The incident is described as a one to two gallon oil spill on the storage area loading pad on February 19, 1987. The source of the spill was identified as a leak in a 2-inch diameter diesel supply line located under the concrete pad. The supply line was shut off, drained, and tested with air pressure.

On February 26, 1987, a 4-by-6-foot section of the 6-inch thick concrete pad was removed. Diesel odors were evident in gravel located under the concrete pad. Groundwater and surface water contamination were encountered due to high rainfall; however, a floating boom and absorbent material were used to contain and remove the contamination. A *Report of Initial Phase Evaluation* prepared by S&ME, dated June 26, 1987, states that soil samples taken from one foot below the surface of the pad contained minimal levels of oil and grease. The report also stated that a collection sump collected about 1,300 gallons of oily surface runoff from the contaminated area and was treated by an existing oil/water separator. At the time of the report, the runoff no longer contained oily substances. The diesel UST and associated product lines were de-commissioned and ASTs were put in use. In August 1987, further soil samples taken at depths of 3-to-5 feet below grade also contained minimal amounts of oil and grease. The State closed the case in a letter dated August 25, 1987.

UST Section:

The NCDENR Asheville Regional Office identified files located in the UST program under VME. The files, dated from 1994 to 1996, included UST release investigation and remediation reports submitted by SPATCO Environmental, Inc. (SPATCO) and correspondence from the NCDENR.

A *Tank Closure Report* by SPATCO, dated December 1994, identifies the removal of five USTs and associated piping in the area located between Buildings 1 and 2 in October 1994. The tanks consisted of one 30,000-gallon hydraulic oil, one 12,000-gallon diesel, one 10,000-gallon waste oil, one 8,000-gallon engine oil, and one 8,000-gallon antifreeze UST. One post-excavation soil sample collected from the western limit of the hydraulic oil UST detected oil and grease concentrations above NCDENR action limits. Two post-excavation samples collected from the product lines area detected concentrations of halogenated (chlorinated) volatile organic compounds (VOC) above NCDENR action limits, and three

samples from the product lines area detected oil and grease concentrations above the NCDENR action limits. SPATCO attributed the chlorinated VOC concentrations to the former Groundwater Incident No. 3374 (diesel release), which received closure in 1987. Therefore, no further chlorinated VOC analysis was completed during the UST investigation. The incident was assigned Federal ID No. 0-004736.

An *Initial Assessment Report* by SPATCO, dated April 3, 1995, was performed to define the vertical extent of contamination. Two soil borings were drilled to 20 feet deep along the western boundary of the former UST, and total petroleum hydrocarbons (TPH) were detected at a depth of 15 to 17 feet below grade.

A *Soil Excavation and Assessment Report* by SPATCO in October 1995 describe horizontal and vertical delineation of soil contamination, soil excavation, and installation of a groundwater monitoring well (MW-1). Contaminated soil was excavated from beneath the former USTs. Oil and grease contamination was detected in soil at 19 feet deep along the northwestern boundary of the former USTs. Further excavation of soils was not possible due to the presence of electric lines, a 4-inch gas main, a 4-inch water main, and the southern wall of the Wash Pit area. Groundwater monitoring well MW-1 was installed in the northern portion of the excavation. The groundwater sample was analyzed for semi-volatile petroleum hydrocarbons and analytical results were below the method detection limit. The incident was assigned Groundwater Incident No. 13466.

SPATCO submitted *Four Quarterly Monitor Well Sampling Results* to the NCDENR, finding minimal detections of semi-volatile organic compounds below NCDENR standards. The last sampling was conducted in August 1996. On October 28, 1996, the NCDENR split a resample from the monitoring well with VME. In a letter dated October 29, 1996, the NCDENR states that the monitoring well contained a distinct film of "an unknown oil". The letter also states that the subject property is classified as a low-priority site (60E). VME was required to conduct free product removal from well MW-1 and a water supply well survey within 1,500 feet of the former tank excavation. No further documentation was in the public record from the NCDENR regarding this incident.

A *Cleanup Report with Site Closure Request*, was performed (2010) by Bradburn Briller & Johnson (BB&J) to address the 1994 UST removals and to obtain a *"No Further Action" (NFA)* closure of incident No. 13466. A *"Notice of Residual Petroleum" (NRP)* was submitted to NCDENR which defined a "*Delineated Area"* to be restricted for industrial/commercial use only. The NCDENR UST Section issued a *NFA*, pursuant to 15A NCAC 2L.0407(d), Risk-Based Assessment and Corrective Action for Petroleum Underground Storage Tanks, on December 15, 2010. This *NFA* pertains only to the UST incident described above (Groundwater Incident No. 13466).

Superfund Section:

The North Carolina Superfund Section indicated that the USEPA designated NFRAP status to Clark in August 1995 and that no further information exists in the State Inactive Hazardous Sites for the property.

6.1.3 Local Regulatory Agency Findings

BLE researched property tax files, building department records, zoning records, land value records and contacted the City of Asheville Fire Department in an effort to obtain historical use information and/or information regarding *RECs* that may be associated with the subject site. Indications of *RECs* to the subject site were not identified from these sources.

Surrounding Properties

As reported by EDR, surrounding properties were searched in the federal and state databases within a one-mile radius search of the site. In addition, the EDR Orphan Summary Report was reviewed for listings that are unmapped due to insufficient address information. The surrounding properties and orphan sites identified are not likely to impact the subject property based upon the distance of the listed property, downgradient or sidegradient topography locations, separation by a hydrologic barrier, such as a river; and/or, lack of environmental violation records history.

6.2 Physical Setting Sources

6.2.1 Topography

According to the *Asheville,* North Carolina USGS Topographic Map, 7.5-Minute Series, dated 1991, elevation at the site is approximately 2,200 feet msl (feet above mean sea level), with a general west-southwest topographic gradient toward Lake Julian. BLE utilized a copy of the applicable portion of the referenced USGS topographic maps for the Site Location Map, which is included in **Appendix B**.

The term "upgradient" refers to a location topographically and hydraulically upstream of the site. Contaminants from an upgradient location could potentially impact the site if they were released on or beneath the ground surface. Conversely, a "downgradient location" would generally not have the potential to impact the site. Adjacent and nearby properties to the north and east are judged to be topographically upgradient of the site.

6.2.2 Geology

The subject site is located in the southern Blue Ridge Physiographic Province of North Carolina. The province is comprised of rugged, forested slopes rising from an elevation of about 1,500 feet at the base of the escarpment, to over 6,000 feet among the highest mountain peaks. Of the many rivers that drain the mountains, all but three, the Broad, Catawba, and the Yadkin-Peedee, rise on the western side of the eastern continental divide and flow generally northwest towards the Tennessee River.

The subject site is located in the Blue Ridge (Murphy Belt) geologic formation. This formation is a complex mixture of igneous, sedimentary, and metamorphic rock which has repeatedly been squeezed, fractured, faulted, and twisted into folds. The Blue Ridge belt is well known for its deposits of feldspar, mica and quartz-basic materials used in the ceramic, paint and electronic industries.

6.2.3 Soils

The typical residual soil profile consists of clayey soils near the surface, where soil weathering is more advanced, underlain by micaceous clayey, sandy silts and silty sands. Residual soil zones develop by the *in situ* chemical weathering of bedrock, and are commonly referred to as "saprolite." Saprolite usually consists of micaceous sand with lesser amounts of clay, silt and large rock fragments. The thickness of the saprolite in the Blue Ridge ranges from a few feet to more than 100 feet. The boundary between soil and rock is not sharply defined. According to the United States Department of Agriculture Web Soil Survey, soil on the subject property mainly consists of Urban land (Ux) and Udorthants-Urban land complex, 2 to 50 percent slopes (Uhe). The northwestern and western perimeters of the Site consist of EvardCowee complex, 15 to 30 percent slopes, stony. The northeastern, southern, and eastern peripheries of the subject property consist of Clifton-Urban land complex, 8 to 5 percent slopes (Cue) and Clifton

sandy loam, 8 to 15 percent slopes (CsC), and Clifton clay loam, 8 to 15 percent slopes (CkC2) and 15 to 30 percent slopes (CkD2).

A transitional zone of partially weathered rock is normally found overlying the parent bedrock. Partially weathered rock is defined, for engineering purposes, as residual material with standard penetration resistance in excess of 100 blows per foot (bpf). Fractures, joints, and the presence of less resistant rock types facilitate weathering. Consequently, the profile of the partially weathered rock and hard rock is quite irregular and erratic, even over short horizontal distances. Also, it is not unusual to find lenses and boulders of hard rock and zones of partially weathered rock within the soil mantle, well above the general bedrock level.

6.2.4 Hydrogeology

Groundwater in the Blue Ridge usually occurs as unconfined water table aquifers in three primary geologic zones: 1) residual soil; 2) partially weathered rock; and 3) fractured bedrock. These zones are typically interconnected through open fractures and pore spaces. The configuration of the water table aquifer generally resembles the local topography (i.e. groundwater flow corresponds to the overlying topography). Furthermore, the referenced USGS map indicates that the local topographic gradient is to the west and south toward Lake Julian. Therefore, it is BLE's opinion that the groundwater flow beneath the site is also to the west and south.

In the residual soil and partially weathered rock zone, groundwater is stored within the pore spaces and is released to the underlying bedrock through gravity drainage. Groundwater within the bedrock zones occurs primarily in fracture voids. Generally, fractures within the bedrock are very small but may extend to several hundred feet.

Infiltration of precipitation to recharge the water table aquifer is primarily affected by rainfall intensity and duration, pre-existing soil moisture conditions, temperature (evaporation), and plant uptake (transpiration). Seasonal high-water tables are typically observed during the late winter and early spring months of the year when maximum infiltration efficiency occurs due to lower temperatures and less plant uptake (i.e., many plants are dormant). Seasonal low-water tables are typically observed during the summer and fall months when minimum infiltration efficiency occurs due to higher temperatures and greater plant uptake of water.

6.3 Historical Use Information

According to the historic data review, several smaller structures (single-family residential) were developed on the subject property between 1906 and 1965. The construction of the current Site buildings began between 1970 and 1988. Clark initially utilized the site in approximately 1978 and VME subsequently utilized the site from approximately 1978 until 1996. Since at least February 1996, VCE has utilized the Site for construction equipment manufacturing/assembly.

6.3.1 Aerial Photographs

BLE reviewed-readily available aerial photographs of the site and surrounding areas from the Aerial Photo Decade Package obtained from EDR. Aerial photographs dated 1970, 1988, 1994, 2006, and a recent aerial photograph from Google Earth, were reviewed. Applicable aerials dated prior to 1970 were not available from the referenced sources. Copies of the aerial photographs are provided in **Appendix B**.

The aerial photographs were examined to determine prior usage, development, and construction on the site and adjacent properties and are described as follows:

1970
The subject property appears as undeveloped, naturally-wooded land. The existing rail line is present to the south; Hendersonville Road, forested land, and minimal development are present to the east; and, Atkins Street and residential development are present to the north. Forested land and Lake Julian exist to the west. Due to quality of the photograph, specific details of the Site are not discernible.

1988
The subject property appears to be developed with two large structures and one smaller structure between them; paved areas surround the structures. There is cleared land in the southern portion and an access drive extending west from Hendersonville Road. Increased development appears present on adjacent properties to the north, south, and east. Forested land and Lake Julian appear to the west of the Site. Due to quality of the photograph, specific details of the site are not discernible.

1994
The subject property and adjacent properties appear similar to the 1988 aerial photograph, with increased development to the east.

2006
The subject property appears similar to the 1994 aerial photograph, with an addition added to the south side of the large structure to the west and additions to the north and east sides of the large structure to the east. An additional structure appears present on the western portion of the site and two smaller additional structures appear present on the northern portion of the site. Paved areas are present between structures and a parking area is present on the southern portion of the subject property. The western and northern portions of the subject property remain forested land. Adjacent properties appear similar to the 1994 aerial photograph.

6.3.2 Fire Insurance Maps

A search of available Sanborn Fire Insurance Maps (Sanborn Maps) was conducted on behalf of BLE by EDR. According to EDR, Sanborn Map coverage of the site and the immediately surrounding area was not identified. A copy of the Certified Sanborn® Map Report is provided in **Appendix B**.

6.3.3 Property Tax Files

BLE reviewed current tax files for portions of the site maintained by Buncombe County. Specifically, BLE reviewed tax files property identification numbers 9644-87-4957-00000, 9644-89-7101-00000, 9644-89-7195-00000, 9644-97-6333-00000, 9644-98-7146-00000, and 9644-99-1143-00000. Indications of *RECs* were not identified through the review of the referenced files.

6.3.4 Recorded Land Title Records

According to Buncombe County Register of Deeds, at the time of this Phase I ESA, property ownership information was as follows:

Parcel No.	Grantor	Grantee	Deed Date
9644-87-4957-00000	Carolina Power & Light Company	VME Americas, Inc.	December 20, 1991
9644-98-7146-00000	Clark Equipment Company	VME Americas, Inc.	March 30, 1994
9644-89-7195-00000	Lloyd Martin Collinsworth, Trustee of The Collinsworth Family Trust	Volvo Construction Equipment North America, Inc.	February 14, 1996
9644-97-6333-00000	Carolina Power & Light Company	Volvo Construction Equipment North America, Inc.	April 7, 1997
9644-89-7101-00000	Carolina Power & Light Company	Volvo Construction Equipment North America, Inc.	April 7, 1997
9644-99-1143-00000	Mary Funderud	Volvo Construction Equipment North America, Inc.	August 20, 1999

6.3.5 Historical USGS Topographic Quadrangles

BLE reviewed historic the USGS Topographic Quadrangle (7.5-Minute Series), *Asheville,* NC maps to research Site development. Historic topographic maps from EDR for the years 1906, 1965, 1978, and 1991 were reviewed. Copies of the topographic maps are provided in **Appendix B**.

1906
The subject property appears to be undeveloped with Hendersonville Road identified adjacent to the west and an unnamed roadway to the south. Development appears present to the north and south of the Site.

1965
The subject property appears to be developed with an unpaved roadway running north to south and to have four structures present on the southern portion and one structure present on the northern portion. Southern Railroad line and several structures appear to the south of the subject property. Hendersonville Road and development are identified to the east, Atkins Street and development are identified to the northeast, and Shoals Road is present to the north. Undeveloped land and Lake Julian appear to the west.

1978
The subject property appears to be developed in its present configuration with Building 1 and 2 and access drive extending west from Hendersonville Road. The four structures on the southern portion of the subject property and one structure on the northern portion continue to be present. The unpaved roadway is no longer identified. Surrounding properties appear similar to the 1965 topographic map.

1991

The subject property appears similar to the 1978 topographic map, with the addition of one (1) structure on the northeast portion of the site, one structure between Building 1 and 2, one structure on the southwest portion, and one structure on the southeast portion of the site. Surrounding properties appear similar to the 1978 topographic map.

6.3.6 City Directories

BLE requested a City Directory abstract search from EDR. According to information provided in the abstract search, the Site address was listed as Suitt Construction in the 2000 Polk's City Directory. The surrounding properties were listed as residential and commercial/administrative uses between 1996 and 2010. The EDR-City Directory Abstract is provided in **Appendix B**.

6.3.7 Building Department Records

The City of Asheville Development Services Center informed BLE that the original construction permit on file for 2169 Hendersonville Road was issued January 23, 1996. No information was provided regarding previous permit applications or building specifications.

6.3.8 Zoning/Land Use Records

Zoning and land-use records reviewed for Buncombe County state the subject site is zoned "CI – Commercial Industrial".

6.3.9 Prior Reports & Interviews

Environmental issues at the facility have been documented in regulatory agency records, environmental assessment reports, and soil/groundwater sample analysis results conducted at the VCE site from the 1980s to December 2010. BLE conducted interviews with VCE employees at the operations, management, and corporate level who had specific knowledge of the hazardous materials generation, handling, storing, and disposal practices at the facility. Of the numerous reference materials, the following sources were reviewed:

- Solvent Management Plan, VCE and VME, various dates from 1987 – 1991;
- *Initial Phase Evaluation of Diesel Fuel Contamination – Central Exterior Concrete Storage Area,* Groundwater incident No. 3374, prepared for VME by S&ME, dated June 26, 1987;
- *Tank Closure Report,* prepared for VME by SPATCO, dated December 1994;
- *Initial Assessment Report* prepared for VME by SPATCO, dated April 3, 1995;
- *Soil Excavation and Assessment Report*, prepared for VME by SPATCO, dated October 3, 1995;
- USEPA CERCLIS files regarding Clark Construction Co. designated NFRAP, dated August 1995;
- *Second Quarterly Monitor Well Sampling Results*, prepared for VCE by SPATCO, dated January 24, 1996;
- *Fourth Quarter Monitor Well Sampling Results*, prepared for VME by SPATCO, dated September 24, 1996;
- *Sediment Sampling and Analysis Report for West Pond*, prepared for VCE by CPEES, dated July 27, 2000;

- *Phase I ESA*, prepared for VCE by Brinkerhoff Environmental Services, Inc., dated April 27, 2010;
- Volvo Construction Equipment, North America Response to CERCLA section 104(e) Information Request, to Lisa Ellis, Esquire, U.S. Environmental Protection Agency (USEPA), (supporting documents), prepared for VCE by Wallace King Domike & Reiskin, PLLC, dated September 27, 2010;
- *Soil Cleanup Report with Site Closure Request*, prepared for VCE by BB&J, dated October 26, 2010;
- *Marketing Package,* of property and building details prepared by Jones Lang LaSalle, dated 2010;
- "*Notice of Residual Petroleum*" Volvo Construction Equipment North America, Inc., Buncombe County, North Carolina, submitted to NCDENR, Division of Waste Management UST Section, executed by VCE on dated November 30, 2010, approved December 15, 2010;
- "*Notice of No Further Action*", 15A NCAC 2L.0407(d), Risk-Based Assessment and Corrective Action for Petroleum Underground Storage Tanks, with the NCDENR, Division of Waste Management UST Section, dated December 15, 2010;

Pertinent information obtained from interviews summarized in Section 7.9.1 is discussed in applicable sections of this report.

6.4 Data Gap Summary

Data failure (as defined by ASTM) prevented BLE from establishing the specific use of the subject site before 1970 (earliest record of development). While the limited amount of aerial photographs, the lack of historical street directory coverage, and the lack of available property title records present a data gap, it is BLE's opinion that this data failure is not a significant data gap since first development. Considering this information, BLE does not believe that this data gap affected the Environmental Professional's ability to identify *RECs*.

7.0 SITE RECONNAISSANCE

Mr. Thomas L. Lammons, P.G., CHMM (an Environmental Professional as defined in §312.10 of 40 CFR 312), conducted the site reconnaissance portion of the assessment on May 5, 2011. At the time of the site visit, the weather was clear. The site reconnaissance consisted of visual observations of the property and surrounding area. Photographic documentation is included in **Appendix A**.

7.1 Methodology and Limiting Conditions

The field reconnaissance consisted of site and adjoining property observations from public right-of-ways and easily accessible pathways. Site Photograph Documentation is included in **Appendix A**. A Site Location Map and Aerial Photographs of the site are included in **Appendix B**.

7.2 Hazardous Substance Use/Storage

At the time of our site visit, the property and all on-site structures related to the facility's former operation were vacant. During the past Clark, VME, and VCE operations, various hazardous substances were purchased, generated, stored, or handled at the facility including engine oil, hydraulic fluid, antifreeze, transmission oil, diesel fuel, refrigerants, paints, paint hardener, primer, adhesives, lubricants, and degreasers.

Based on our interviews with knowledgeable VCE plant personnel and review of provided written documentation[1], VCE established and adhered to a number of policies and procedures designed to ensure the safe purchase, use, generation, storage, handling, and disposal of hazardous substances in adherence with applicable regulatory requirements.

We understand that during the past operations, hazardous materials were stored in small containers near the point of use and in designated (labeled) areas. Satellite waste accumulation areas were present throughout the facility for <30 day storage. A central covered storage area near the former tank farm was used for hazardous materials storage away from the facility buildings. The central exterior storage area is on a curbed and covered concrete pad, secured by locking fence with highly visible labeling. No hazardous materials were stored at the time of our site reconnaissance.

According to Mr. Trevis Allen, Assistant Fire Marshal, Battalion 2, Asheville Fire Department, the subject property was researched and no record of hazardous storage or emergencies involving fire to the structure are recorded. The property is listed as currently vacant and previously occupied by VCE.

7.3 Storage Tanks – UST/AST

No USTs or ASTs are currently present on the site; however, petroleum fuel USTs and ASTs have been present at the site during past years.

USTs

Prior to December 1994, five petroleum fuel USTs were present in the area located between Buildings 1 and 2. The tanks consisted of one 30,000-gallon hydraulic oil, one 12,000-gallon diesel, one 10,000-gallon waste oil, one 8,000-gallon engine oil, and one 8,000-gallon antifreeze UST. Two petroleum fuel release incidents were documented from the UST system; a subsurface transfer line release in 1987, and UST releases detected during tank removals in 1994.

Based on a 1980s Clark site plan, a gasoline UST was present where currently the 30,700-square-foot final paint building is located on the western portion of the site[2]. No information was provided regarding removal or assessment of this UST.

ASTs

A new concrete containment area for ASTs is located south of Building 2. No tanks have been installed as of yet. In addition, prior to BLE's site reconnaissance, five ASTs were present in a concrete containment area near the test-track; and five additional ASTs were present adjacent to the covered storage containment area located between Buildings 1 and 2 (containing diesel oil, hydraulic oil, motor oil, transmission fluid, and antifreeze). Two propane ASTs were also observed in the area adjacent to the covered storage containment area. During the site reconnaissance, no staining or obvious signs of a release were observed in the former AST areas or AST containment areas. No documented AST releases were reported.

[1] "Request for Information Pursuant to Section 104(e) of CERCLA", from the USEPA public file, provided by Wallace King Domike & Reskin, PLLC, dated September 27, 2010.
[2] FOIA documents provided from the NCDENR, Hazardous Waste section/DWM, by MS. Spring Allen, CHMM, Waste management Specialist, spring.allen@ncdenr.gov.

7.3.1 Other Petroleum Products

Past facility records documented two oil spills (2005, 2008), a historical oil/water separator, outside waste oil tanks on site. Also, a lubricating, hydraulic, and cooling oil dispensing rack on the west side of the *Assembly Building* was labeled on a historical site plan during the Clark ownership period.

7.3.2 Evidence of Historic Fill

BLE did not observe evidence of historic fill on the site during the site reconnaissance. However, a prior Phase I ESA of the site (Brinkerhoff Environmental Services, Inc., dated April 27, 2010) referred to possible sand blasting spoils that were previously used to fill in low areas around the exterior paint-blasting shed. BLE saw no evidence of this in the field.

7.4 Polychlorinated Biphenyls (PCBs)

Historically, PCBs were utilized as thermal insulating additives in transformers. In addition, PCBs have also been used as insulation additives in a variety of oils, including hydraulic oils. PCBs were domestically manufactured from 1929 until their manufacture was banned in 1979 pursuant to the Toxic Substances Control Act (TSCA). Although no longer commercially produced in the United States, PCBs may be present in products and materials produced before the 1979 PCB ban.

During the Site reconnaissance, BLE observed five pad-mounted transformers on the site; two were located adjacent to the electrical sub-station north of the test-track, two were located adjacent to Buildings 1 and 2, and one transformer was adjacent to the west side of the Final Paint building. Additionally, transformers and switches were observed within the site buildings. The electrical equipment observed during the site reconnaissance appeared to be in satisfactory condition with no evidence of significant staining/leakage on or around the transformers.

7.5 Waste Generation, Storage and Disposal

Interviews with VCE former plant managers, employees and information released at the direction of Ms. Martha P. Boyd, VME Vice President, General Council, documented the company's process for removal and disposal of solid and hazardous wastes from the facility.

Discarded solid waste materials were contained on site in dumpsters and routinely removed by waste disposal contractors, as needed. Hazardous wastes were stored in satellite storage areas and the central facility storage area until removed from the site for disposal to permitted facilities. No on-site hazardous waste treatment was reported to have occurred during past operations. Waste disposal contractors consisted of:

- Giant Resource Recovery Company (GRR) – Norwood, North Carolina, www.grr-giant.com. Disposal of sand blasted media and hazardous materials. Recyclers of liquid, solid, semi-solid, and aerosol wastes by fuel blending.
- Southeastern Chemical Co (Omni) – pretreatment of metals sludge (zinc and aluminum coatings sludge) and disposal. Provides industrial waste services for sludges, and solids in bulk and non-hazardous water processing.
- M&M Chemical Co. – waste oil disposal.

- Neo Corporation – Canton, NC, www.neocorporation.com. Demolition and decontamination of zinc and aluminum coating materials. Also provides plant hazardous materials management.
- Safety Kleen – Greer, SC (Greenville), www.safety-kleen.com. Parts washer solvent disposal and hazardous materials management

Other contractors identified to BLE by VCE included Energy Recovery Resources, Inc., GSX Services, Inc., Oldover Corp., Chemical Waste Management.

7.6 Septic Systems and Wastewater Discharges

BLE did not observe evidence of a septic system on the site. On-site sanitary wastes have historically been discharged to the municipal sewer system. On-site floor drains located throughout the site buildings are connected to the municipal sewer system. According to VCE personnel, the newly constructed washhouse is serviced by one oil/water separator prior to discharging to the sanitary sewer system.

BLE observed floor drains within the interior portions of the site buildings. The floor drains, which are reportedly connected and discharge to the municipal sewer system, were observed to be in good condition during the site reconnaissance. No hazardous materials storage or staining indicative of a release were observed in areas surrounding the on-site floor drains.

Drains located in the wash areas are either connected to concrete-lined sumps, which are pumped out periodically, or discharge to the two on-site oil/water separators.

7.7 Storm Water Management/Surface Areas

Storm water inlets were observed on site that convey surface runoff and roof drains into the three retention ponds on the south side of the property. The ponds discharge into Lake Julian.

According to VCE personnel, storm water from western portions of the site is piped to the concrete-lined retention pond located adjacent to the southwest of Building 2 then serviced by one oil/water separator and discharged to the main retention pond located at the southern site boundary. During the Site reconnaissance, no evidence of a release was observed in areas surrounding the discharge pipes within the retention ponds.

7.8 Wells

The site receives potable water from the City of Asheville. BLE did not observe potable wells during the site reconnaissance. BLE observed one 2-inch diameter groundwater monitoring well (MW-1) in the location of the former five USTs.

7.9 Interview with Owner/Key Site Manager/Occupants

BLE interviewed the VCE Director of Corporate Environmental Affairs, key former VCE site managers and employees, NCDENR regulators familiar with the site operations, the City of Asheville Assistant Fire Marshall, real estate agent for the property and relevant Buncombe County employees. A Phase I ESA Environmental Questionnaire was provided to Mr. Rick Robinson, VCE Director of Safety & Environmental Affairs. The questionnaire responses identified a former UST diesel fuel release

(subsurface) and diesel fuel release to the storm water system during the previous operations. These issues were assessed under the direction of NCDENR and reported in the "Soil Cleanup Report / Site Cleanup Request", with "Notice of Residual Petroleum" provided by BB&J, environmental consultants, dated October 26, 2010 on behalf of VCE. The NCDENR, UST Section/DWM issued a "No Further Action Closure" based on these documents. No other known *RECs* on the property were indicated by VCE.

7.9.1 Interview Summary

The following persons were interviewed to obtain information regarding *RECs* in connection with the site and/or general information regarding the site:

Name	***Title/Company***
Marty Breedlove	Former VCE Plant Facility Manager
Rick Robinson	Dir., Safety & Environmental Affairs, VCE
Robert Adams	Facilities Manager, VCE Asheville (Arden) Plant
Mike Couvreur	Facilities, VCE Asheville (Arden) Plant
John T. Cashion, SIOR	Jones Lang Lasalle, Sr. VP, Industrial Services
Sergio Rojas	Brinkerhoff Environmental Services
Diane Eskenasy, L.G.	NCDENR, UST Section/DWM, Asheville Regional Office
Roberta Proctor	NCDENR, Waste Management Specialist/HWS/DWM, Asheville
Spring Allen, CHMM	NCDENR, Environmental Sr. Specialist, HWS/DWM, Asheville
Trevis Allen	Assistant Fire Marshall, City of Asheville

8.0 NON-ASTM ISSUES

This assessment did not include an evaluation of any "non-scope" items (i.e. asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands, et. al.) listed in Section 13 of the referenced ASTM standard. Similarly, this assessment did not include an evaluation of any "non-scope" items (i.e. silviculture, high voltage power lines, ecological resources, et. al.) listed in Section 12 of ASTM Practice E-2247-02, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property*.

9.0 PHASE I ESA FINDINGS AND CONCLUSIONS

Recognized Environmental Conditions (REC)

- Residual soil and groundwater contamination by petroleum and chlorinated VOCs was documented at the site in 1987, 1994, and 1995. The releases occurred from the buried piping of a UST system located between Buildings 1 and 2, (NC Incident No. 3374, 13466, and Federal ID No. 0-004736). The incident was assessed and NCDENR classified the site as "low-priority" (60E). VME was required to conduct free product removal from well MW-1 and a water supply well survey within 1,500 feet of the former tank excavation. No further documentation was in the public record addressing these NCDENR requirements.

- The *Tank Closure Report* prepared by SPATCO, dated December 1994, states that chlorinated volatile compounds were detected above NCDENR action limits in two soil samples collected beneath UST product lines. SPATCO attributed the chlorinated volatile compound concentrations to the former Groundwater Incident No. 3374 (diesel line release), which received closure in 1987. No further chlorinated volatile compound analysis was completed during the UST investigation. The presence of chlorinated hydrocarbons is not consistent with a diesel release and would indicate the presence of other sources for this soil contaminant.

- VCE's consultant, BB&J, prepared a *Notice of Residual Petroleum* (NRP) to address the UST removals in 1994. A *perpetual land use restriction* for the area proximal to the former USTs (defined as *Delineated Area)* limits the property to industrial/commercial use, in accordance with the NCDENR NRP. The NCDENR UST Section issued a "*Notice of No Further Action*", pursuant to 15A NCAC 2L.0407(d), Risk-Based Assessment and Corrective Action for Petroleum Underground Storage Tanks, on December 15, 2010. This NFA pertains only to the UST incident described above (Groundwater Incident No. 13466).

- The location of an oil/water separator identified in the *Report of Initial Phase Evaluation,* prepared by S&ME and dated June 26, 1987, on site is unknown.

- Based on internal facility records, additional RECs were identified, as follows:
  - Unknown location of a reported concrete lined sump on site;
  - 2008 petroleum spill and impact to West and Office Retention Pond sediments;
  - 2005 hydraulic oil spill in the central above ground tank farm;
  - Unknown location of soil piles and oil/water separator grit on site;
  - Use of tetrachloroethene (PCE), trichloroethene (TCE) and 2-chlorotoluene;
  - Former drum storage and waste oil AST areas (Clark Equipment operations)
  - Former hazardous waste and paint storage area (Clark Equipment operations)
  - Reported disposal of sand blasting spoils on site; and
  - Various former wash pads on the site dating to 1995.

RECOMMENDATIONS

BLE recommends a Limited Phase II ESA to include collection of soil and groundwater samples downgradient from the former product line release, UST release, areas where past facility records have documented oil spills, hazardous materials storage areas, historical oil/water separator, and possible solids disposal (grit and sands). A sample laboratory analysis plan should target contaminants of concern, based on the environmental issues identified.

10.0 CERTIFICATION OF ENVIRONMENTAL PROFESSIONALS

BLE has performed this ESA of the approximate 66.74-acre subject site is located at 2169 Hendersonville Road in Arden, North Carolina. The scope of the ESA was generally consistent with ASTM Practice E 1527-05. Resumes for the following environmental professionals are included in **Appendix D**. The referenced ASTM standard requires the following statement:

The undersigned declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

BUNNELL-LAMMONS ENGINEERING, INC.

Thomas L. Lammons, P.G., CHMM
Principal Hydrogeologist
Registered, North Carolina No. 1264

11.0 REFERENCES

ASTM, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation E 1527-05

ASTM, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property*, ASTM Designation E 2247-02

BLE Proposal Number P11-0209

Buncombe County Government Website

Buncombe County Geographic Information System (GIS)

Buncombe County Planning and Development Department

Buncombe County Tax Department

City of Asheville Fire Department

City of Asheville Planning and Development Department

City of Asheville, North Carolina Website

EDR Aerial Photo Decade Package

EDR City Directory Abstract Report

EDR Historical Topographic Map Report

EDR Radius Map Report

EDR Sanborn Map Report

United States Department of Agriculture's Soil Conservation Service

United States Geologic Survey

USGS Topographic Quadrangle Maps, *Asheville*, North Carolina, 7.5 Minute Series

12.0 APPENDICES

Appendix A **Site Photographs**
Appendix B **Figures and Historical Research Documentation**
Appendix C **Regulatory Database Report**
Appendix D **Resumes and Terminology**

APPENDIX A

SITE PHOTOGRAPHS

Material receiving area near Hendersonville Road gate.

Facing west at Hendersonville Road guard shack. View of Fabrication Building (Building 1).

Former sandblasting shed. East side of Building 1.

Facing west. North side of facility.

Facing south. View of former sand blasting shed.

North of Building 1. Equipment off-loading area.

Material storage shed between Buildings 1 and 2.

Facing south. Building 1 on left. Pad-mounted transformer.

Facing west. View of former AST farm (red spill containment wall), covered hazardous materials storage area, Building 2 in distance.

Former AST farm. Also, area of former USTs from 1994-1995 release. Area between Buildings 1 and 2.

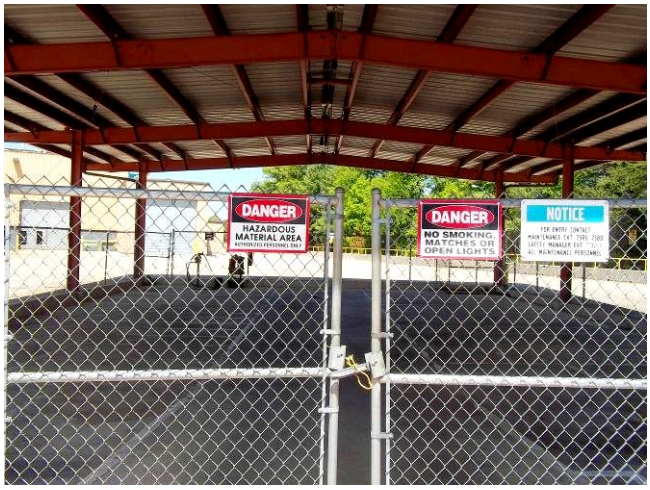
Hazardous materials loading/off loading area. Note previous boring/sampling locations in pavement.

Previous sample locations "GP-10" from 2010 *Soil Cleanup Report with Site Closure Request*

Facing west. View of Building 2 (Assembly Building). In view are pad-mounted transformer, wash building and subsurface oil/water separator area.

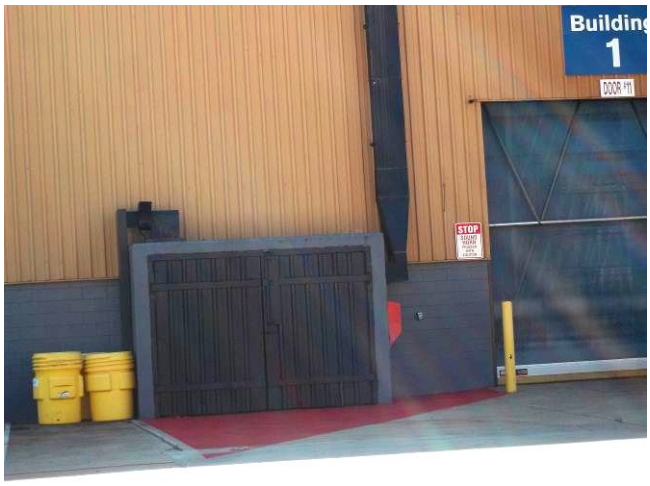
Facing southwest. Building 2.

Covered and curbed hazardous materials storage area between Buildings 1 and 2.

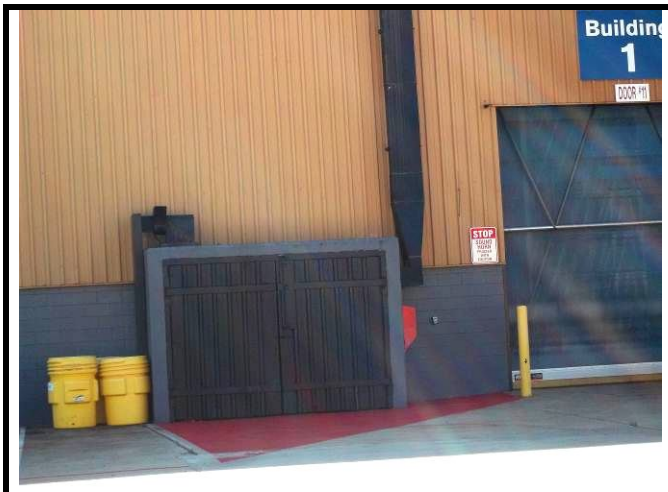


Covered and curbed hazardous materials storage area between Buildings 1 and 2.

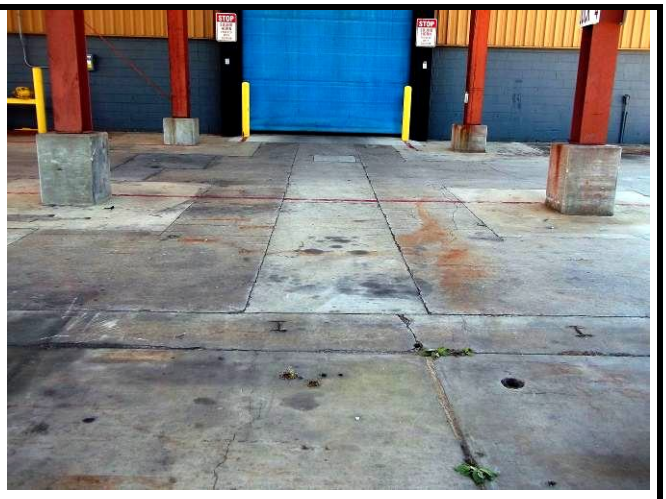
Pad-mounted transformer near Building 2.



Small hazardous materials storage area adjacent to Building 1.



Small hazardous materials storage area adjacent to Building 1.



North of Building 1. Equipment off-loading area and former AST farm. Note tank rings on concrete.

Same as previous.

Same as previous.

Same as previous.

Inside view of Building 1 (Fabrication Building).

Inside view of Building 1 (Fabrication Building).

Inside view of Building 1. Former equipment vault – backfilled.

Inside view of Building 1 (Fabrication Building)

Inside view of Building 1 (Fabrication Building). Southeast corner, near former metal coating area. Floor drains out to public sewer authority.

Inside view of Building 2.

Fire protection system inside Building 2.

Inside view of Building 2.

Inside view of Building 2.

Facing west. West retention pond behind (south) of Building 2.

Facing east. West retention pond behind (south) of Building 2.

Facing south. West retention pond. In distance, AST farm containment structure (red).

AST farm containment dike behind (south) of Building 2. Stormwater piping (racked overhead) to East Retention Pond.

Facing north. AST farm containment dike behind (south) of Building 2. Facility never used.

Facing east from AST containment area.

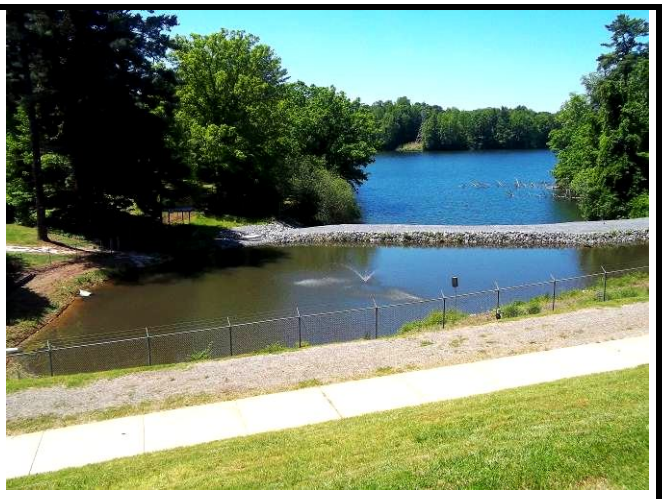
Facing east. View of storm water piping rack from AST containment to East (Office) Pond.

Facing west. View of storm water piping rack from AST containment to East (Office) Pond.

Rear of Office Building. Roof drains piped (overhead rack) to East Retention Pond.

Stormwater piping (racked overhead) from AST containment and roof drains to East Retention Pond.

East Retention Pond behind office.



East retention pond (Office Pond).

East retention pond (Office Pond).

Inside view of office cafeteria.

Inside utility panels in office/cafeteria building.

Training room. Typical photograph of construction equipment manufactured at facility.

Facing north. View of power substation near test track.

Facing east. View of test track on north end of facility.

Facing south. West side of Paint Building.

Facing west. View of Paint Building (east side). Note Paint Kitchen in center photograph.

Facing south. View of Paint Building.

Facing south. View of Paint Building (right) and Building 2 (left).

Pad-mounted transformer on west side of Paint Building.

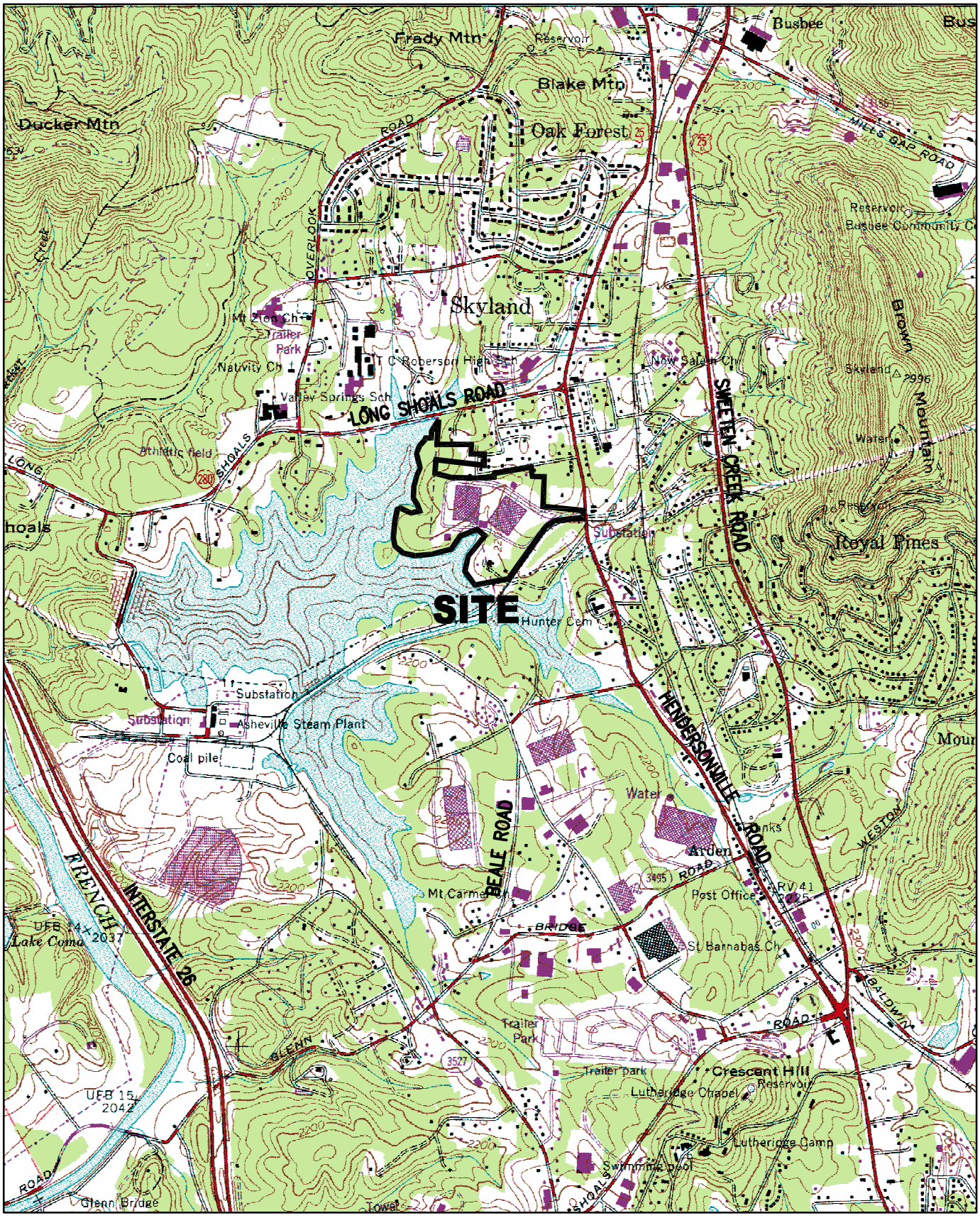
Facing north. View of gravel laydown yard.

Facing north. View toward Long Shoals Road gate.

Facing southwest. View of gravel laydown yard.

APPENDIX B

FIGURES, AERIAL PHOTOGRAPHS, HISTORICAL RESEARCH DOCUMENTATION

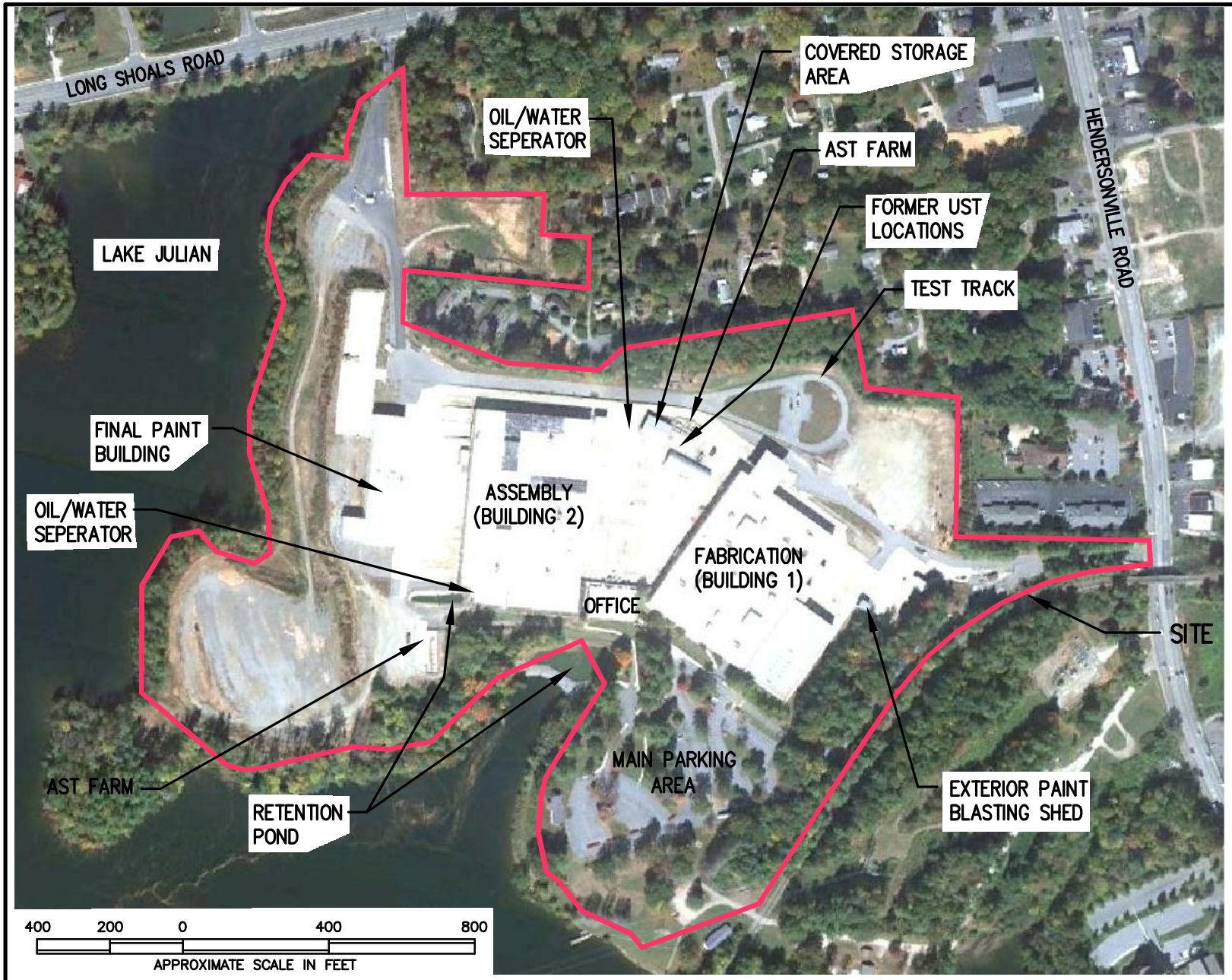


2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES,
SKYLAND, N.C. QUADRANGLE, PHOTOREVISED 1991.

DRAWN: ACE	DATE: 05-20-11	BLE INC. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE LOCATION MAP VOLVO CONSTRUCTION EQUIPMENT SITE 2169 HENDERSONVILLE ROAD ARDEN, NORTH CAROLINA	FIGURE 1
CHECKED: TLL	CAD: VOLVOCEA-SLM			
APPROVED: TLL	JOB NO: J11-7389-02			



REFERENCE:
GOOGLE EARTH IMAGE DATED 10-21-10.

DRAWN: ACE	DATE: 05-20-11	BUNNELL-LAMMONS ENGINEERING, INC.	FIGURE
CHECKED: TLL	CAD: VOLVOCEA-APSS	6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	AERIAL PHOTOGRAPH OF SUBJECT SITE VOLVO CONSTRUCTION EQUIPMENT SITE 2169 HENDERSONVILLE ROAD ARDEN, NORTH CAROLINA
APPROVED: TLL	JOB NO: J11-7389-02		2

600 300 0 600 1200

APPROXIMATE SCALE IN FEET

SURROUNDING PROPERTIES

1. PROGRESS ENERGY OF THE CAROLINAS
2. ELLISTON OFFICE PARK (MEDICAL)
3. BLACK FOREST RESTAURANT
4. SHOPPING CENTER: TUCSON SOUTHWEST GRILLE AND CAROLINA OPTOMETRIC OF ARDEN
5. MIDAS AUTO REPAIR
6. WESTERN CAROLINA VETERINARY
7. RESIDENTIAL
8. RESIDENTIAL
9. PIT ROW CAR WASH AND DETAILING
10. CENTURY 21 MOUNTAIN LIFESTYLES
11. ALL RESIDENTIAL OR VACANT (UNDEVELOPED)
12. USED CAR SALES
13. RETAIL SHOPPING CENTER – TAX OFFICE AND INSURANCE OFFICE
14. KEEN TRANSPORT, INC.
15. ALL STATE INSURANCE COMPANY, ARPIN CHIROPRACTIC AND ARDEN DENTAL
16. CHAPALA GROCERY
17. ARDEN PRESBYTERIAN CHURCH
18. APARTMENT HOMES
19. THE BOATHOUSE RESTAURANT
20. CAROLINA MOUNTAIN DERMATOLOGY
21. GROCE FUNERAL HOME
22. BUNCOMBE COUNTY ELEMENTARY, MIDDLE AND HIGH SCHOOLS

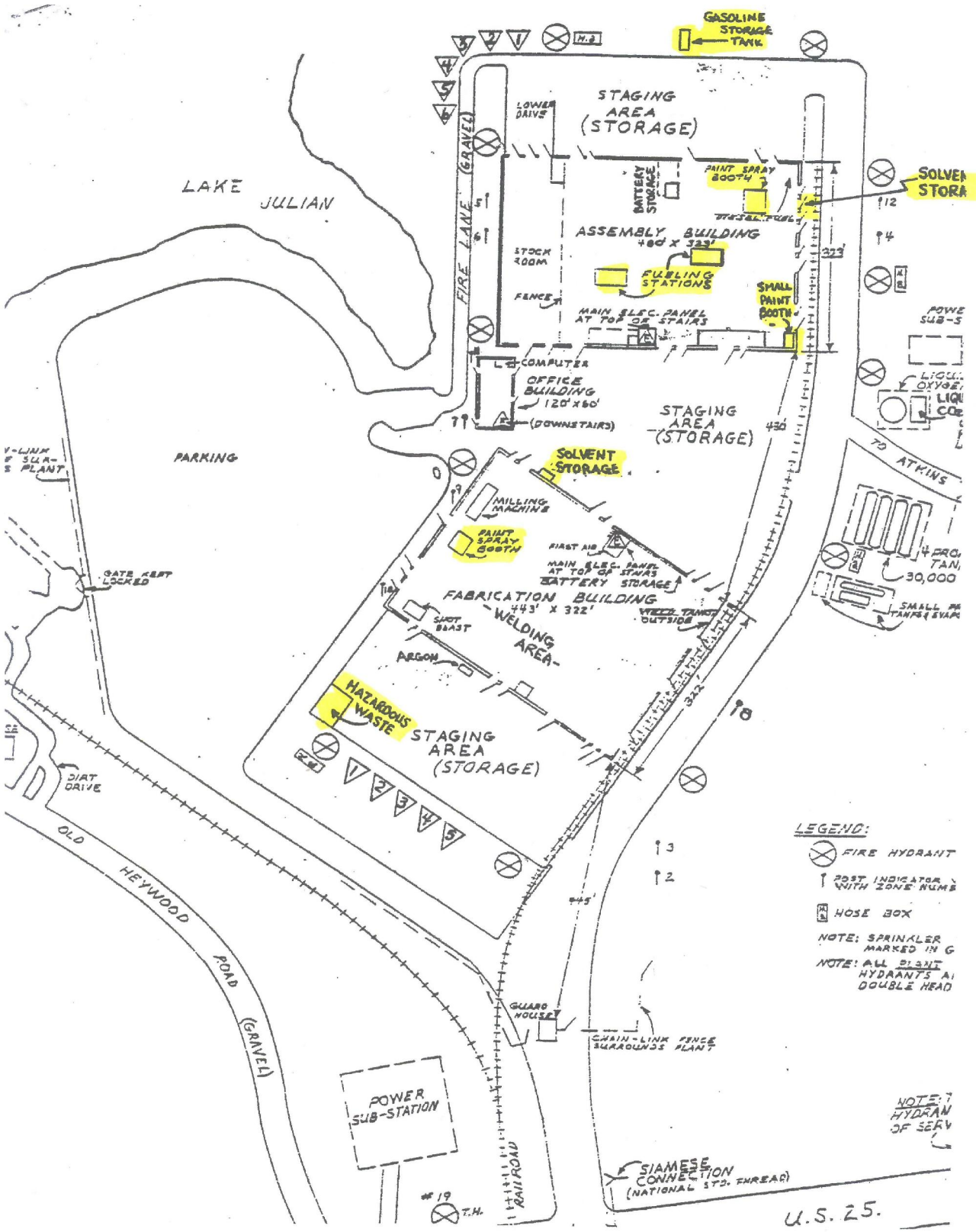
REFERENCE:
GOOGLE EARTH IMAGE DATED 10–21–10.

DRAWN BY:	ACE	DATE:	05–20–11	REVISIONS			
CHECKED BY:	TLL	FILE:	BOLVOCEA–SPM	No.	DESCRIPTION	BY	
APPROVED BY:	TLL	JOB NO:	J11–7389–02				

BLE INC. BUNNELL-LAMMONS ENGINEERING, INC.
6004 PONDERS COURT
GREENVILLE, SOUTH CAROLINA 29615
PHONE: (864)288–1265 FAX: (864)288–4430

SURROUNDING PROPERTIES MAP
VOLVO CONSTRUCTION EQUIPMENT SITE
2169 HENDERSONVILLE ROAD
ARDEN, NORTH CAROLINA

FIGURE
3



REFERENCE:
DRAWING PROVIDED BY CLARK EQUIPMENT COMPANY.

DRAWN: ACE	DATE: 05-20-11	BLE inc. BUNNELL-LAMMONS ENGINEERING, INC. 6004 PONDERS COURT GREENVILLE, SOUTH CAROLINA 29615 PHONE: (864)288-1265 FAX: (864)288-4430	SITE PLAN CLARK EQUIPMENT COMPANY, CIRCA 1970s-1980s 2169 HENDERSONVILLE ROAD ARDEN, NORTH CAROLINA
CHECKED: TLL	CAD: VOLVOCEA-HS		FIGURE 4
APPROVED: TLL	JOB NO: J11-7932-02		